

Abstract of the Disclosure

A plurality of Raman amplifiers are positioned on a transmission line over which a multi-wavelength light is transmitted. Each of the Raman amplifiers uses a plurality of pump lights λ_1 through λ_4 . When a fault occurs in a pump light source producing the pump light λ_3 in a particular Raman amplifier among the plurality of Raman amplifiers, the power of the pump light λ_3 is raised in another or other Raman amplifiers.